Air Quality Permitting
Statement of Basis

January 24, 2008

Tier I Operating Permit No. T1-2007.0061

Bennett Forest Industries, Grangeville

Facility ID No. 049-00003

Prepared by:

Jonathan Pettit, Permit Writer
Air Quality Division

Public Comment DRAFT

Table of Contents

Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
Bldg	building
Btu	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
gr/dscf	grain (1 lb = 7,000 grains) per dry standard cubic foot
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
lb/mbf	pounds of emissions per thousand board feet of lumber
mbf	thousand board feet of lumber
mfr	manufacturer
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
SM	synthetic minor
T/R	transformer/rectifier
T/yr	tons per year
UTM	Universal Transverse Mercator

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this draft Tier I operating permit in accordance with IDAPA 58.01.01.362.

The Department of Environmental Quality (DEQ) has reviewed the information provided by Bennett Forest Industries regarding the operation of its facility located in Grangeville. This information was submitted based on the requirements to submit a Tier I operating permit application in accordance with IDAPA 58.01.01.313.

2. FACILITY DESCRIPTION

Bennett Forest Industries produces dimensional lumber products at the Grangeville facility. The processes include log storage, debarking, sawing, planning, drying of wood, final product storage, and distribution. Steam for the production processes is generated by the Wellons boiler which is fired by wood wastes generated onsite. Saleable products include the dimensional lumber, wood chips, bark and rosebud horse bedding.

3. FACILITY/AREA CLASSIFICATION

For purposes of the Title V permit program Bennett Forest Industries is defined under IDAPA 58.01.01.008.10.c as a major facility because the potential to emit any regulated air pollutant would exceed 100 tons per year. The AIRS classification is "A" because the potential to emit of PM, VOC, SO_2, CO, and NO_x exceed major source levels.

The facility is located within AQCR 63 and UTM zone 11. The facility is located in Idaho County which is designated as unclassifiable for all criteria pollutants (PM_{10}, CO, NO_x, SO_2, lead, and ozone).

The AIRS information provided in Appendix A provides the revised classification for each regulated air pollutant at Bennett Forest Industries. This required information is entered into the EPA AIRs database.
.

4. APPLICATION SCOPE

Initial Tier I Operating Permit for Bennett Forest Industries in Grangeville. This Tier I Operating Permit incorporated PTC No. P-050214 issued July 10, 2006 and 40 CFR 64 "Compliance Assurance Monitoring" requirements.

5. SUMMARY OF EVENTS

April 19, 2007	DEQ receives application
June 7, 2007	DEQ determines application complete
July 11, 2007	Project reassigned to new permit writer
August 30, 2007	Project reassigned to new permit writer

5.1 Permitting History

July 29, 2005	Initial PTC No. P-040214, issued July 29, 2005
July 29, 2006	Modified PTC No. P-050214, issued July 10, 2006

6. PERMIT ANALYSIS

6.1 Basis of Analysis

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- PTC No. P-050214, issued July 10, 2006
- Tier I Operating Permit application received April 19, 2007
- IDAPA 58.01.01, Rules for the Control of Air Pollution in Idaho
- Guidance developed by the U.S. Environmental Protection Agency (EPA) and DEQ

6.2 Emissions Description and Emissions Inventory

Emissions from the sources at this facility were estimated by the applicant and reviewed by DEQ. Tables 5.2 shows the estimated emissions of the criteria pollutants which may be emitted from point sources. The basis for these estimates is as follows:

For the Boiler, the rated heat input rate of 115.7 MMBtu/hr and 1,014,001 MMBtu/yr (115.7 MMBtu/hr * 8760 hr/yr = 1,014,001 MMBtu/yr) was used for purposes of all analyses. For the kilns, the allowable kiln production rate of 250 MMbf/yr was used.

The hazardous air pollutant (HAP) emissions were also estimated and permit limits exist so that HAP emissions will not exceed 10 T/yr of any one HAP or 25 T/yr of any combination of HAPs. Refer to 40 CFR Parts 61 & 63 in the Regulatory Review Section below for details.

Table 5.2 EMISSION INVENTORY - CONTROLLED EMISSIONS

Source	PM[a]		PM_{10}[b]		Nitrogen Oxides		Sulfur Dioxide		Carbon Monoxide		VOC[c]	
	(lb/hr)[d]	(T/yr)[e]	(lb/hr)[d]	(T/yr)[e]	(lb/hr)[d]	(T/yr)[e]	(lb/hr)[d]	(T/yr)[e]	(lb/hr)[d]	(T/yr)[e]	(lb/hr)[d]	(T/yr)[e]
Boiler	11.6	51	6.6	28.9	29.0	127	27.2	119	23.2	101	5.8	25
All Kilns (combined emissions)	9.82	41	5.65	24	---	---	---	---	---	---	44.6	188
Cyclone 11	0.02	0.04	0.020	0.04	---	---	---	---	---	---	---	---
Cyclone 12	0.64	1.29	0.520	1.0	---	---	---	---	---	---	---	---
Cyclone 41	0.0015	0.003	0.0012	0.0024	---	---	---	---	---	---	---	---
Cyclone 71	0.99	1.97	0.49	0.99	---	---	---	---	---	---	---	---
Cyclone 72	0.22	0.45	0.22	0.45	---	---	---	---	---	---	---	---
Cyclone 73	2.8	5.6	1.40	2.8	---	---	---	---	---	---	---	---
Total:	---	101	---	58	---	127	---	119	---	101	---	213

a) Particulate Matter
b) Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
c) Volatile Organic Compounds
d) Pounds per hour
e) Tons per year

7. REGULATORY ANALYSIS

7.1 IDAPA 58.01.01.313.01.b – Original Tier I Operating Permit

This permitting action is required for Bennett Forest Industries of Grangeville as a source that was not previously authorized by a Tier I Operating Permit that became a Tier I source after May 1, 1994.

7.2 New Source Performance Standards (NSPS) – 40 CFR 60

On October 4, 2005, a letter was issued from EPA Region 10 to Bennett Forest Industries concerning monitoring requirements under 40 CFR 60.49b(d). A copy of the letter is included in Appendix B. This letter includes the following statements and the corresponding permit conditions were changed accordingly:

"EPA determines that if BFI is subject to the more stringent emission limit for particulate matter of 0.10 lb/million Btu and a restriction to combust only wood, the requirement to record the amount of wood combusted each day is not needed for the purposes of calculating the annual capacity factor, as required by Subpart Db §60.49b(d)." … "If BFI is required to monitor the fuel usage for some other reason, EPA has also determined that BFI's proposal to monitor the fuel usage based upon steaming rate is acceptable."

On February 27, 2006, EPA issued a final rule amendment to 40 CFR Part 60 Subpart Db (71 FR 9866). The amended standards apply to "those units that begin construction, modification, or reconstruction after February 28, 2005." On April 12, 2006 the facility provided information to DEQ which indicates that "BFI and Wellons finalized a contractual agreement to order the boiler consistent with agreed upon specifications on August 16, 2004 with a PO from BFI to Wellons." Based on this information that a purchase order for this boiler was entered into prior to February 28, 2005, it has been determined that the Wellons Boiler is not subject to the amended NSPS standards under Subpart Db.

7.3 National Emission Standards for Hazardous Air Pollutants (NESHAPS) – 40 CFR Parts 61 & 63

Facility emissions will remain below the HAP major source threshold of 10 TPY of any one HAP or aggregate HAP emissions of 25 TPY. Therefore, 40 CFR 63 Subpart DDDD will not apply to the facility as a result of this permit modification. Information from the original analysis for this facility is repeated below for convenient reference.

40 CFR 63 Subpart DDDD .....NESHAPS: Plywood and Composite Wood Products

63.2231 Does this subpart apply to me?

This subpart applies to you if you meet the criteria in paragraphs (a) and (b) of this section, except for facilities that the Environmental Protection Agency (EPA) determines are part of the low-risk subcategory of PCWP manufacturing facilities as specified in appendix B to this subpart.

(a) You own or operate a PCWP manufacturing facility. A PCWP manufacturing facility is a facility that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a structural panel or engineered wood product. Plywood and composite wood products manufacturing facilities also include facilities that manufacture dry veneer and lumber kilns located at any facility. Plywood and composite wood products include, but are not limited to, plywood, veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.

(b) The PCWP manufacturing facility is located at a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07

megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

Bennett Forest Industries has HAP emissions of less than 10 tons per year of any single HAP and less than 25 tons per year of combined HAPs. 40 CFR 63.2231(a) includes lumber kilns located at any facility as applicable. 40 CFR 63.2231(b) includes facilities that emit or have the potential to emit any single HAP at a rate of 10 tons per year or more or any combination of HAPs at a rate of 25 tons per year or more. 40 CFR 63.2231 specifies that the subpart applies if the facility meets the criteria of both (a) and (b). Bennett Forest Industries meets the criteria of (a) but not of (b) since the federally-enforceable permit conditions established by this permit limit the potential to emit of HAPs to less than 10 tons per year of any single HAP and to less than 25 tons per year of any combination of HAPs. Therefore, 40 CFR 63 Subpart DDDD does not apply to Bennett Forest Industries.

7.5 Compliance Assurance Monitoring (CAM) – 40 CFR 64

During the PTC review, it was determined that Bennett Forest Industries Hog Fuel Boiler was determined to be applicable to CAM provisions. CAM rules are applicable requirements for the boiler for Title V permitting purposes. Per 40 CFR 64.5(a)(1) the owner or operator shall submit information to comply with the CAM rules as part of the Tier I operating permit application. Details regarding applicability of the CAM rules are provided below.

Applicability is evaluated on a pollutant-specific basis for each emissions unit as follows:

- Under 64.2(a)(1), the boiler is subject to numerous emission limitations or standards, including the following: NAAQS for SO_2 and PM_{10}; IDAPA 58.01.01.676 (fuel burning equipment grain loading standard) for PM; and NSPS for PM.
- Under 64.2(a)(2), the boiler uses an ESP control device to achieve compliance with the emission limitations and standards listed above for PM_{10} and PM. Part 64 does not apply with regard to any other regulated air pollutants because the boiler does not use a control device to achieve compliance with any of the emission limitations or standards for those pollutants.
- Under 64.2(a)(3) the boiler has potential pre-control device emission of PM that are greater than 100 TPY.
- The CAM exemptions under 64.2(b) do not apply to this source.

Based on the CAM plan submitted by the facility and EPA guidance for CAM for electrostatic precipitators, permit condition were written establishing the following:

- Pollutant specific emissions unit is located at a major source that is required to obtain a Title V permit.
- Pollutant specific emission unit is subject to an emission limitation or standard for the applicable emission limitation or standard.
- Pollutant specific emission unit uses a control devise to achieve compliance with the applicable emission limitation or standard.
- Potential pre-control emissions of applicable regulated pollutant from the unit are greater than the major source threshold (See Table 7.1)

In the case of the Hog Fuel Boiler at Bennett Forest Industries of Grangeville, the regulated pollutant applicable to CAM is PM (a surrogate for PM_{10}) because of pre-control emissions of PM exceed 100 T/yr. The Hog Fuel Boiler is attached to a multiclone and an electrostatic precipitator which are subject to CAM.

Table 7.1 Hog Fueled Boiler Uncontrolled and Controlled PTE for PM/PM_{10}

Regulated Air Pollutant for CAM	T/yr[1]
PM Uncontrolled PTE	283.9
PM_{10} Uncontrolled PTE	253.5
PM Controlled PTE	50.70
PM_{10} Controlled PTE	20.58

[1] The applicant based uncontrolled calculations son AP-42 Table 1.6-1 Emission Factors for PM and PM-10 from uncontrolled wood fired boilers fueled with bark / bark and wet wood.

CAM is not required at this time because this is an initial Tier I permitting action. BFI's Hog fuel boilers potential to emit after the ESP is less than 100% of the PM/PM_{10} (in tons per year) required to classify the facility as a major source as defined by 40 CFR 64.5(a). Therefore, because the boiler is limited to 28.9 T/yr after the ESP, the hog fuel boiler meets the definition of 40 CFR 64.5(b) for *Other Pollutant-specific emission units*, therefore, the owner or operator shall submit the information required per 40 CFR 64.4 as part of an application for a renewal of the Tier I Operating Permit.

8. PERMIT CONDITIONS

This section describes only the changes made to the permit as a result of this permitting action. Existing permit conditions are identified as "Existing Permit Conditions", and revised permit conditions are identified as "Revised Permit Conditions."

8.1 *Facility-Wide Conditions*

Emission Unit Description

Facility-wide conditions include facility-wide fugitive emissions, odors, visible emissions, criteria pollutant visible emissions (including opacity) fuel burning equipment, fuel sulfur content, open burning, renovation and demolition, accidental release of chemicals and recycling and emissions reductions. These provisions generally apply for the whole facility.

Should there be a conflict between the facility-wide conditions of this permit (T1-2007.0061) and PTC No. P-050214, issued July 10, 2006, these facility wide conditions shall govern.

8.2 *Hog Fuel Boiler*

Emission Unit Description

The Wellons hog fuel-fired boiler supplies up to 80,000 pounds per hour of steam to five kilns which are used to dry lumber. The rated heat input capacity of the boiler is 116 million Btu/hr.

The PM and PM_{10} emissions from the boiler are controlled by a multiclone and an electrostatic precipitator (ESP).

Permit Conditions 3.1, 3.4, 3.6, 3.8, 3.9, 3.10, 3.11, 3.12 and 3.13

Compliance with the NAAQS was demonstrated at the controlled emission rate. Since emissions at an uncontrolled rate would cause an exceedance of the PM_{10} NAAQS, and compliance at the controlled emission rate is close to the 24-hour standard, an emission rate limit was established to assure future compliance with the PM_{10} standards. The PM_{10} emission rate limit of 6.6 lb/hr corresponds to the emission rate used in the model to demonstrate compliance with the NAAQS. Compliance is demonstrated by meeting the following: permit requirements for the installation and operation of the

multi clone and electrostatic precipitator control systems; the requirement for periodic PM_{10} performance tests; and the daily steam production limit that corresponds to the firing rate presented in the NAAQS compliance demonstration in the PTC application. Permit Condition 3.4 establishes the daily steam production limit, based on the manufacturers revised steam heat value (995 BTU/lb-steam) and boiler efficiency (68.8%) as follows:

Operating limit = (115.7 MMBtu/hr)(24 hr/day)(0.688)(lb-steam/995 BTU) = 1.92 MM lb-steam/day

Consistent with the original PTC for this project, as a part of testing, records of a wood waste fuel analysis and the amount of steam produced are required to ensure that the testing is conducted under normal operating conditions. Also, records of the power input to the ESP are required to show that conditions during testing are consistent with the ESP operating requirements under Permit Condition 3.6.3.

Permit Conditions 3.6, 3.9, 3.10 and 3.11

Requirements to establish and comply with the following operating parameters in the O&M manual, based on manufacturer's recommended settings: secondary voltage, amperage, power and spark rate input to each T/R set of the ESP and the spark rate are established within these conditions. Upon renewal or modification of the initial Tier I Operating Permit, a CAM plan will be submitted, at that time additional monitoring details will be developed for the multiclone and ESP.

Permit condition 3.6.4 has been included to the original permit condition to incorporate CAM applicability. This condition was added to the Tier I that requires incorporation of CAM during modification or renewal of the Tier I permit.

Tier I Permit Condition 3.7, and Condition 3.11 of PTC No. P-050214 issued July 10, 2006

In a letter to EPA Region 10 dated December 23, 2005, Bennett Forest Industries requested alternative methods for complying with the boiler COMS requirements under 40 CFR 60 Subpart Db. As a result, the requirements to comply with these rules as given in these permit conditions includes the words "or per an EPA-approved alternative." In this way the permit will not preclude compliance from being achieved by following an EPA-approved alternative to these rules.

Permit condition 3.11 from PTC P-050214, issued July 10, 2006 was not incorporated into this Tier I operation permit because this tier I operating permit establishes the general applicability of 40 CFR 60, Subpart A, including the requirements for future testing when requested by the Administrator under Section 114 of the Act, in permit condition 3.15. Permit Condition 3.11 from PTC P-050214, issued July 10, 2006 established an "initial" performance testing requirement. This facility has conducted the initial performance test thus making the permit condition obsolete for the purposes of this tier I operating permit.

Permit Condition 3.8

Condition 3.8 was established to incorporate the following EPA determination issued on October 4, 2005 for this facility: "*EPA determines that if BFI is subject to the more stringent emission limit for particulate matter of 0.10 lb/million Btu and a restriction to combust only wood, the requirement to record the amount of wood combusted each day is not needed for the purposes of calculating the annual capacity factor, as required by Subpart Db 60.49b(d).";* and on page 2 of the letter *"…there is also no need for BFI to calculate the annual capacity factor for wood.."* A copy of the EPA applicability determination letter is included in Appendix B.

Permit Condition 3.9

Permit Condition 3.9 incorporated Permit Condition 3.12 from PTC P-050214, issued July 10, 2006 but a schedule has been added for recurring performance testing at least every five years in proximity with the Tier I Operating Permit renewal schedule.

Permit Condition 3.10

The ESP power monitoring requirements make the units of measure and averaging time more apparent. This monitoring needs to be done consistently with the manufacturer's information maintained per the O&M manual requirements.

Permit Conditions 3.14 and 3.15

Requirements to follow the NSPS General Provisions given under 40 CFR 60 Subpart A, including those for reporting under 60.4, were added to make it more clear that these requirements apply to the boiler

8.3 *Production Equipment*

New Kiln Emission Factors

While Bennett Forest Industries of Grangeville is currently classified as "SM" for HAPs, a recent emissions study conducted at Oregon State University (OSU) on lumber drying kilns indicates that certain HAP emissions are much higher than previously thought. As a result, some facilities that believed their potential to emit (PTE) for HAP emissions were less than the major source thresholds (10 tons or more per year for a single HAP or 25 tons per year or more for a combination of HAPs) may now be a major source of HAPs. In cases where a facility may have its own site-specific HAP source test information, this data may be considered best available data and could be used instead of the OSU data.

Facility PTE is the maximum capacity of a stationary source (all emission units) to emit a pollutant (in tons per year) under its physical and operational design. Enforceable limits, such as those contained in a permit to construct, can be considered in determining the facility PTE.

There are at least two MACT standards that may apply to lumber facilities if they are major sources of HAPs: Plywood and Composite Wood Products (40 CFR Part 63, Subpart DDDD), and Commercial/Industrial/ Institutional Boilers and Process Heaters (Subpart DDDDD). EPA's "once-in-always-in" policy means that if you are a major HAP source on the compliance date for a given MACT standard, then you are always subject to that MACT standard, even if you later lower your HAP emissions. On June 19, 2007, the U.S. Court of Appeals partially vacated and remanded the 40 CFR Part 63, Subpart DDDD MACT standard, moving up the compliance date by one year to October 1, 2007. On July 30, 2007, the court completely vacated the 40 CFR Part 63, Subpart DDDDD MACT standard, now requiring a Section 112j (of the Clean Air Act) case-by-case MACT determination for all major HAP sources. The new compliance date for the 40 CFR Part 63, Subpart DDDDD MACT is not yet clear, but we expect to be requesting Section 112(j) applications in the future.

Below is a table of the new OSU kiln emission factors.

Kiln Emissions Factors Based on OSU's Data

Species	Max. Kiln Temp. ºF	Total HAP lb/MMBF	Methanol lb/MMBF	Formaldehyde lb/MMBF	Acetaldehyde lb/MMBF	Propionaldehyde lb/MMBF	Acrolein lb/MMBF
Hemlock	< 200 º F	189	72	1.24	113	1	1.6
Hemlock	> 200 º F	305	186	3.8	113 (1)	1 (1)	1.6 (1)
Douglas Fir	< 200 º F	97	38	1	57	0.55	0.65
Douglas Fir	> 200 º F	116	57	1 (1)	57 (1)	0.55 (1)	0.65 (1)
White Fir	< 200 º F	240	122	2.8	113 (2)	1 (1)(2)	1.6 (1)(2)
White Fir	> 200 º F	301	183	2.8 (1)	113 (1)(2)	1 (1)(2)	1.6 (1)(2)
Ponderosa Pine (3)	< 200 º F	184	65	2.9	113 (1)(2)	1 (1)(2)	1.6 (1)(2)
Lodgepole Pine (3)	< 200 º F	73.6	55	4	12	1 (1)(2)	1.6 (1)(2)
Lodgepole Pine (3)	> 200 º F	78.6	60	4 (6)	12 (6)	1 (1)(2)	1.6 (1)(2)
Slash Pine (4)	> 200 º F	215	164	4 (5)	44.7	1 (1)(2)	1.6 (1)(2)

(1) Assumes emissions of this HAP not temperature dependent. There is insufficient data to know for sure.
(2) Assumes emissions are the same as Hemlock.
(3) Pine is not normally dried at temperatures > 200º F.
(4) No data for Slash Pine dried < 200º F.
(5) Assume to be the same as for Lodgepole Pine.
(6) Assumes emissions the same as for Lodgepole Pine dried at < 200 º.

Permit Conditions 4.2, 4.3, 4.8 and 4.9

Formaldehyde emission limits and operating, monitoring and recordkeeping requirements are established for the kilns to demonstrate compliance with IDAPA 58.01.01.210.08. Compliance with the kiln emission limit is demonstrated by calculating and recording formaldehyde emissions on a monthly basis using the actual kiln production records. Refer to IDAPA 58.01.01.203.03, 210 in the regulatory analysis section and the modeling memorandum in Appendix B of the Statement of Basis for PTC No. P-050214 for additional information.

Permit Conditions 4.1, 4.6, 4.7 and 4.9

In Section 8 of the PTC application a permit condition was requested to track monthly running total HAP emissions from the facility and to verify that HAP emissions remain below the major source threshold. The HAP major source threshold is no more than 10 tons per year of any one HAP (methanol is the only pollutant which could possible reach this limit) and no more than 25 tons per year of any combination of any HAPs. On this basis, HAP emission limits and associated monitoring were established in PTC No. P-050214.

Permit Conditions 4.3, 4.4, 4.10 and 4.11

The application indicates that baghouses will be installed to control PM emissions from Cyclones 11 and 72 and the controlled emission rates from these sources were used in the analysis for demonstrating compliance with the PM_{10} NAAQS. Therefore, to assure that actual emissions remain consistent with the NAAQS analysis, operating requirements were added to the permit for installation and use of these two baghouses. In addition, monitoring and recordkeeping requirements in the form of an O&M manual and pressure drop monitoring were also added to assure compliance for these sources.

Permit Condition 4.9

The kiln throughput monitoring requirement requires records of individual species of wood processed. This information is needed since different species have different emission factors for estimating emissions of HAPs and formaldehyde. This information is also needed to comply with other operating and monitoring requirements in Section 4 of the permit.

9. INSIGNIFICANT ACTIVITIES

Activities and emission units identified as insignificant under IDAPA 58.01.01.317.01(b) are listed in the Tier I operating permit to qualify for a permit shield.

Table 9.1INSIGNIFICANT ACTIVITIES

Description	Insignificant Activities Citation
Boiler relief valve(s)	IDAPA 58.01.01.317.01.a.1.77
Boiler blowdown	IDAPA 58.01.01.317.01a.i.1,2
All facility fuel and volatile storage and transfer operations	IDAPA 58.01.01.317.01.b.i.1,2
Any onsite welding	IDAPA 58.01.01.317.01.b.i.9
Painting and coating operations	IDAPA 58.01.01.317.01.b.i.17,25
Kerosene, natural gas, or propane space heaters under 5 MMBtu/hr	IDAPA 58.01.01.317.01.b.i.18
Parts cleaning	IDAPA 58.01.01.317.01.b.i.26
All other facility fugitives emission sources, including: facility vehicle traffic, sawing, conveyors, transfer sources, storage sources, debarking, screening, hog, log watering system, and associated sources	IDAPA 58.01.01.317.01b.i.30
Emergency diesel generator	IDAPA 58.01.01.317.01.b.i.30

There are no monitoring, recordkeeping, or reporting requirements for insignificant emission units or activities beyond those required in the Facility-wide Permit Conditions.

10. ALTERNATIVE OPERATING SCENARIOS

The facility did not request any alternative operating scenarios.

11. TRADING SCENARIOS

The facility did not request any trading scenarios.

12. PERMIT REVIEW

12.1 Regional Review of Draft Permit

DEQ provided the draft permit to its Lewiston Regional Office on December 10, 2008. Comments were received December 19, 2008 and have been incorporated into the permit

12.2 Facility Review of Draft Permit

DEQ provided the draft permit to Bennett Forest Industries, Grangeville for its review on January 14, 2007. The facility provided written comments on the draft permit on January 23, 2008.

12.3 Public Comment

DEQ provided the draft permit for public comment on January 24, 2008. The public comment period was provided from January 31, 2008 through February 29, 2008.

13. ACID RAIN PERMIT

This facility is not an affected facility as defined in 40 CFR 72 through 75; therefore, acid rain permit requirements do not apply. The facility is not an affected unit according to the definitions and applicability under 72.2 and 72.6. The Bennett Forest Industries Grangeville facility is a non-utility unit (72.6(b)(8)). "Unit" is defined as a fossil fuel-burning device and "utility" is defined as any facility that sells electricity.

14. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees in accordance with IDAPA 58.01.01.387 apply. The facility is in compliance with registration and registration fee requirements.

15. RECOMMENDATION

Based on the Tier I operating permit application and review of state rules and federal regulation, staff recommends that DEQ issue Public Comment Draft Tier I Operating Permit No. T1-2007.0061 to Bennett Forest Industries, Grangeville. This permit is the facility's initial Tier I operating permit. The permit will be made available for public comment as required by IDAPA 58.01.01.364. The project does not involve PSD permitting requirements.

JP/hp Permit No. T1-2007.0061

Appendix A

Bennett Forest Industries
Grangeville

Tier I Operating Permit No. T1-2007.0061

Facility ID No. 049-00003

AIRS Data Entry Form

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Bennett Forest Industries
Facility Location: Grangeville, ID
AIRS Number: 049-00003

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	A						A	U
NO_x	A						A	U
CO	A						A	U
PM_{10}	SM						SM	U
PT (Particulate)	A		A				A	U
VOC	A						A	U
THAP (Total HAPs)	SM						SM	U
			APPLICABLE SUBPART					
			Db					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B

Bennett Forest Industries
Grangeville

Tier I Operating Permit No. T1-2007.0061

Facility ID No. 049-00003

Miscellaneous Information

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: AWT - 107

04 OCT 2005

Michael Scott Atkison, CEO
Bennett Forest Industries
Rt. 1 Box 2L
Grangeville, Idaho 83503

Re: Fuel Usage Monitoring Requirement for an Exclusively Wood-Fired Boiler

Dear Mr. Atkison:

This determination is in response to a request submitted to the Environmental Protection Agency (EPA) by Bennett Forest Industries (BFI) dated June 16, 2005 regarding the fuel usage monitoring requirement of 40 CFR Part 60 Subpart Db, the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (Subpart Db), as it applies to their source. BFI operates a 115 MMBtu/hr boiler that is exclusively fired with wood. This boiler is subject to Subpart Db. BFI is requesting clarification from EPA regarding the applicability of the requirement to record the amount of wood combusted each day and to calculate the annual capacity factor for wood as detailed in Subpart Db §60.49b(d). BFI has also proposed an alternate method for determining the amount of wood combusted.

BFI has asked if EPA can specify permit conditions regarding the fuel usage monitoring requirement. It is the role of the Idaho Department of Environmental Quality (IDEQ) to specify the permit conditions based on this determination. Therefore, EPA will refrain from specifying what those should be. EPA determines that if BFI is subject to the more stringent emission limit for particulate matter of 0.10 lb/million Btu and a restriction to combust only wood, the requirement to record the amount of wood combusted each day is not needed for the purposes of calculating the annual capacity factor, as required by Subpart Db §60.49b(d). EPA has made this determination after consultation with the Idaho Department of Environmental Quality (IDEQ) and EPA headquarters.

If BFI is required to monitor the fuel usage for some other reason, EPA has also determined that BFI's proposal to monitor the fuel usage based upon steaming rate is acceptable. The justifications for these determinations are described further below.

Background

Under Subpart Db §60.49b(d), the owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel. The purpose of determining the annual capacity

factor for each fuel is to determine what sections of Subpart Db apply to your source.

The annual capacity factor, as defined in 40 CFR §60.41b, is:

> "The ratio between the actual heat input to a steam generating unit from … (each fuel) …, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity…" (emphasis added).

The annual capacity factor of wood is needed to determine which particulate matter limit you will be subject to, under §60.43b(c) of the Standard for Particulate Matter in Subpart Db. Based on this definition your annual capacity factor could be anywhere from zero to one for wood.

Under Subpart Db, there is an option for a less stringent limit if certain conditions are met, among them, the requirement to have an annual capacity factor of less than 30 percent for wood. If the annual capacity factor is greater than 30 percent for wood a more stringent emission limit for particulate matter of 0.10 lb/million Btu applies.

Determination

BFI states that the only fuel that will be burned is wood as required by section 3.6 of their Permit to Construct (Permit No. P-040214). Assuming the restriction to burn only wood is required by a federally enforceable permit, EPA can be assured that the annual capacity factors for all other fuels aside from wood will be zero. Therefore, there is no need to calculate the annual capacity factors for all fuels aside from wood. If BFI is subject to the more stringent limit for particulate matter of 0.10 lb/million Btu, there is also no need for BFI to calculate the annual capacity factor for wood.

Therefore, EPA determines that if BFI is subject to the more stringent emission limit for particulate matter of 0.10 lb/million Btu and a restriction to only combust wood, the requirement to record the amount of wood combusted each day is not needed for the purposes of calculating the annual capacity factor, as required by Subpart Db §60.49b(d).

BFI has indicated in conversations that there are physical difficulties in measuring the actual mass of the wood that they combust because it comes in various forms resulting from their operation as a lumber mill. Therefore, if BFI is required to monitor the fuel usage for some other reason, they have proposed an alternative plan for monitoring fuel usage. BFI has stated that they will have a steaming rate monitor required by their permit. The manufacturer of that steaming rate monitor is capable of also having a fuel usage monitor whose values are calculated from the steaming rate. The manufacturer has stated to BFI that they have used this monitor in other applications to document fuel usage for tax purposes, and have validation studies to document its accuracy. EPA has determined that considering your circumstances, if needed, this approach is acceptable for calculating the amount of wood combusted.

If any circumstances change in the way you operate your boiler from that described in this letter, this determination will no longer be valid. If you have any further questions or concerns, contact Heather Valdez of the Region 10 Office of Air, Waste, and Toxics at (206) 553-6220 or valdez.heather@epa.gov.

Sincerely,

Jeff KenKnight, Manager
Federal and Delegated Air Programs Unit

cc: Carole Zundel, IDEQ